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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/763,095

01/22/2004

Mark Elliott Hack

AUS920031029US1

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06/02/2006

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EXAMINER

PATEL, HARI

ART UNIT

PAPER NUMBER

2115

DATE MAILED: 06/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/763,095	HACK, MARK ELLIOTT	
	Examiner	Art Unit	
	Hari Patel	2115	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 January 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1 – 28 are presented for examination.

Claim Objections

2. Claims 5, 8, 16, 19, and 24 are objected to because of the following informalities:

3. As per Claims 5, 16, and 24, lines 7-8 of each claim recite, "assigning a corresponding logical processor mapped the selected physical processor". It is recommended this be changed to "assigning a corresponding logical processor mapped to the selected physical processor".

4. As per Claim 8, lines 1-3 recite, "power usage and generation of heat is reduced reducing power used by the selected device." It is recommended this be changed to "power usage and generation of heat is are reduced by reducing power used by the selected device."

5. As per Claim 19, lines 9-10 recite, "second reassigning the logical processor corresponding back to the selected physical processor." Consider revising this to recite, "second reassigning means for reassigning the logical processor corresponding back to the selected physical processor."

Appropriate correction is required:

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1 – 3, 6, 8, 12 – 14, 20 – 22, and 28 are rejected under 35 U.S.C. 102(e) as being anticipated by Culbert et al. (U.S. PG-Pub No. 2005/0049729).

8. As per Claim 1, Culbert et al. (hereinafter, referred to as “Culbert”) teach a method in a data processing system for managing a set of devices in the data processing system (*Abstract and paragraph [0052], lines 1-3*), the method comprising:

receiving an alert through an alert mechanism (*paragraph [0054], lines 11-12*), wherein the alert is at least one of a power alert and a thermal alert (*paragraph [0054], lines 5-7*);

altering operation of a selected device within the set of devices in response to the alert, wherein at least one of power usage and generation of heat by the selected device is reduced (*paragraph [0071] and paragraph [0179], lines 14-19, 30-39, and 45-48*).

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9. As per Claim 2, Culbert teaches that the set of devices is a set of processors (*paragraph [0052], line 3*).

10. As per Claim 3, Culbert does not disclose the data processing system having multiple logical partitions, thus, it is inherent that the data processing system has a single logical partition.

11. As per Claim 6, Culbert teaches that the set of devices is at least a set of processors.

12. As per Claim 8, Culbert teaches the method wherein reducing power used by the selected device reduces power usage and generation of heat (*paragraph [0179], lines 14-19*).

13. As per Claims 12 and 13, they are directed to a data processing system for managing a set of devices in the data processing system. Since Culbert teaches the claimed method in a data processing system for managing a set of devices in the data processing system as applied to Claims 1 and 2 above, Culbert also teaches the data processing system for managing a set of devices in the data processing system.

14. As per Claim 14, it is directed to a data processing system for managing a set of devices in the data processing system. Since Culbert teaches the claimed method in a

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data processing system for managing a set of devices in the data processing system as applied to Claim 3 above, Culbert also teaches the data processing system for managing a set of devices in the data processing system.

15. As per Claims 20 and 21, they are directed to a computer program product in a computer readable medium for managing a set of devices in the data processing system. Since Culbert teaches the claimed method in a data processing system for managing a set of devices in the data processing system as applied to Claims 1 and 2 above, Culbert also teaches the computer program product in a computer readable medium for managing a set of devices in the data processing system.

16. As per Claim 22, it is directed to a computer program product in a computer readable medium for managing a set of devices in the data processing system. Since Culbert teaches the claimed method in a data processing system for managing a set of devices in the data processing system as applied to Claim 3 above, Culbert also teaches the computer program product in a computer readable medium for managing a set of devices in the data processing system.

17. As per Claim 28, Culbert teaches the claimed data processing system as applied to Claims 12 above. Culbert also teaches the data processing system comprising a bus system connected to a memory and a processing unit (*paragraph [0047], lines 1-4*). The set of instructions would inherently be stored in the memory.

Claim Rejections - 35 USC § 103

18. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

19. Claims 4, 5, 9 – 11, 15 – 19, 23 – 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Culbert et al. as applied to Claims 1, 2, 13, and 21 above, and further in view of Uchishiba et al. (U.S. PG-Pub No. 2002/0016812).

20. As per Claim 4, Culbert teaches the method for managing a set of devices in a data processing system as applied to Claim 2 above. However, Culbert does not teach that the set of devices are a set of physical processors mapped to an equal set of logical processors. Specifically, Culbert teaches the managing of physical processors. Culbert fails to teach the managing of physical and logical processors.

21. Uchishiba et al. (hereinafter, referred to as "Uchishiba") teach a method of managing physical processors, as well as logical processors (*paragraph [0062] and Fig. 7*), wherein the physical processors are mapped to the logical processors (*paragraph [0063]*).

22. It would have been obvious to one of ordinary skill in the art to combine the teachings of Culbert and Uchishiba because they both teach a method of managing a set of physical processors. Uchishiba's disclosure of logical processors shows that physical processors can be mapped to logical processors.

23. As per Claim 5, Culbert teaches a method of altering operation of a selected physical processor by turning off the selected physical processor (*paragraph [0071]*).

Uchishiba teaches a method of assigning a corresponding logical processor mapped to the selected physical processor to another physical processor in the equal set of logical processors (*paragraph [0064]*).

24. As per Claim 9, Culbert and Uchishiba teach the claimed matter as applied to the combined teachings of Claims 1 and 4 above.

25. As per Claim 10, Culbert and Uchishiba teach the claimed matter as applied to Claim 5 above. When the physical processor is powered down, as taught above, it would have been obvious that it is not available.

26. As per Claim 11, it would have been obvious to one of ordinary skill in the art to alter operation of the selected physical processor back to an original state and to reassign the logical processor corresponding back to the selected physical processor

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when another alert is sent to cancel the original claimed alert of the receiving step before the original alert is sent. This would have been obvious because a second alert should be sent when it is determined that altering operation of a processors is unnecessary or unwanted, for any given reason.

27. As per Claims 15 and 16, it is directed to a data processing system for managing a set of devices in the data processing system. Since Culbert teaches the claimed method in a data processing system for managing a set of devices in the data processing system as applied to Claims 4 and 5, respectfully above, Culbert also teaches the data processing system for managing a set of devices in the data processing system. Since it is known in the art that a physical processor may be mapped to two or more logical processors, it would have been obvious that set of physical processors are mapped to an unequal set of logical processors.

28. As per Claims 17 – 19, it is directed to a data processing system for managing a set of devices in the data processing system. Since Culbert teaches the claimed method in a data processing system for managing a set of devices in the data processing system as applied to Claim 9 – 11 above, Culbert also teaches the data processing system for managing a set of devices in the data processing system.

29. As per Claim 23 and 24, they are directed to a computer program product in a computer readable medium for managing a set of devices in the data processing

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system. Since Culbert teaches the claimed method in a data processing system for managing a set of devices in the data processing system as applied to Claims 4, 15, and 5 above, Culbert also teaches the computer program product in a computer readable medium for managing a set of devices in the data processing system.

30. As per Claim 25 – 27, they are directed to a computer program product in a computer readable medium for managing a set of devices in the data processing system. Since Culbert teaches the claimed method in a data processing system for managing a set of devices in the data processing system as applied to Claims 9 – 11 above, Culbert also teaches the computer program product in a computer readable medium for managing a set of devices in the data processing system.

31. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Culbert et al. as applied to Claim 1 above, and further in view of Madukkarumukumana et al. (U.S. PG-Pub No. 2005/0125580).

32. As per Claim 7, Culbert teaches the receiving and altering steps as applied to Claim 1 above. Culbert does not teach that the receiving and altering steps of the claimed method are performed by a runtime abstraction layer. Specifically, Culbert

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teaches a method of managing a set of devices in a data processing system. Culbert fails to mention that a runtime abstraction layer performs the claimed steps.

33. Madukkarumukumana et al. (hereinafter, referred to as "Madukkarumukumana") teach a method of managing a set of devices in a data processing system (*Fig. 2*), wherein managing the processors is performed by an abstraction layer (*paragraph [0016]*).

34. It would have been obvious to one of ordinary skill in the art to combine the teachings of Culbert and Madukkarumukumana because they both teach a method of managing a set of devices in a data processing system. Madukkarumukumana's teaching of an abstraction layer in the data processing system would allow the receiving and altering steps to be performed by the abstraction layer.

Conclusion


35. Any inquiry concerning this communication from the examiner should be directed to Hari Patel whose telephone number is 571-272-2743. The examiner can normally be reached on Monday – Thursday from 8:00am – 5:30pm and every other Friday from 8:00am – 4:30pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Lee, can be reached at 571-272-3667. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of the application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published application may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll free).

Hari Patel
Examiner
Art Unit 2115



THOMAS LEE
SUPERVISORY PATENT EXAMINER